CHAPTER 74-1 REPAIR BY REPLACEMENT PROJECTS

74-1.1 INTRODUCTION

A. PURPOSE - This chapter establishes Indian Health Service (IHS) guidelines for using Maintenance and Improvement (M&I) funds to correct deficiencies in an existing building by replacing the building when this is economically more advantageous than using those same funds to renovate the building. These guidelines also apply to the correction of deficiencies in quarters units using rent collections (Quarters Return (QR) funds) to replace an existing quarters unit when this is economically more advantageous than using those same funds to renovate the quarters unit.

B. BACKGROUND – The IHS has many older and temporary buildings which now require extensive repairs, improvements, and renovation in order to reliably, safely, and functionally support the IHS mission. In addition, routine operation and maintenance costs for these buildings tend to be very high due to old and inefficient equipment; high energy usage; frequent breakdowns; and safety and health issues. Because of the age and condition of many of these older and temporary buildings, it is sometimes less expensive to replace the entire structure than to renovate the existing building.

However, funding for replacement through the new construction budget activity is limited. Hence, these older and temporary buildings must continue in service if the delivery of health care services is to be preserved. To alleviate this situation, IHS authorizes, under these guidelines, the use of M&I funds, and QR funds where applicable, to replace an existing building where replacing is demonstrated to be more cost effective than renovating the building.

C. INTENT - The intent of Repair-by-Replacement is to alleviate maintenance and repair deficiencies in smaller, usually older or temporary, buildings in the most economical way. A building constructed under Repair-by-Replacement need not be on the same site as the building being replaced, but must serve the same user population. In particular, the IHS intent is to replace trailers (which tend to be high maintenance, high utility cost, and low reliability space) with more durable construction. Repair-by-Replacement is not intended for replacing existing large complex

buildings nor circumventing the Health Facilities Construction Priority System or the Quarters Construction Priority System. Buildings, including trailers, shall not be acquired with the intent that they subsequently be replaced under Repair-by-Replacement. Critical maintenance needs must not be deferred in order to carry out a Repair-by-Replacement project.

Buildings replaced under Repair-by-Replacement must be demolished because, by definition, they are not worth renovation.

Replacement buildings are not intended to house more programs or staff than the space they are replacing. However, a replacement building may be slightly larger to support improved functionality of health care services delivery, or to be compatible with current standard sizes, such as a premanufactured modular building.

M&I funds may be used in conjunction with certain other funds (i.e. Medicare and Medicaid (M&M) funds) in order to develop a project that more fully meets the space requirements of services being provided. However, the project must meet the criteria for expenditure of each classification of funding being used, e.g., M&M funds must be used to correct deficiencies that could prevent accreditation. When applying this Repair-by-Replacement guideline to M&I funds, the space provided may not be more than 10% larger than the existing building. Using other funds, the space cannot exceed the space allocations of the existing Health Facilities Planning Manual (HFPM).

QR funds may only be used for quarters units. M&I funds may be used in conjunction with QR funds for quarters units.

D. APPLICABILITY - The Repair-by-Replacement applies to federally-owned buildings for which the cost to replace a building is more advantageous than renovating it.

E. DEFINITIONS

(1) Eligible repairs are those repairs required to correct structural deficiencies, ensure mechanical reliability, meet the requirements of regressive codes, conserve energy (where the payback is less than 10 years), and ensure safety and protect the environment (except where a safety or environmental problem is site-related and would remain if the building moved elsewhere). Other improvements and renovations, including those for non-regressive code or law compliance, e.g., handicapped accessibility, are not eligible repairs nor counted for the purposes of determining eligibility for Repair-by-Replacement. All eligible repairs must be documented in the facilities deficiencies system.

(2) Renovation is used to mean correcting deficiencies, improving systems or functionality, and otherwise repairing, altering, or renovating a building.

(3) Equivalent building is a building that is essentially identical to the existing building in terms of quality, type of construction, and size. An equivalent building is used only to determine when the cost of eligible repairs meets the defined threshold.

(4) Replacement building is a building proposed to replace the existing building. The replacement building should have a lower life-cycle (30-40 years) cost, but may have a higher initial cost than an equivalent building defined in 74-1.1E.(3) above. This analysis can be accomplished using engineering economic formulas and standard cost comparisons of alternative proposals.

(5) Cost estimates are based on construction costs, demolition and disposal of the existing building, clean-up, and sitework except for remediation of environmental deficiencies which relate solely to the site and not the building. Non-real property installed equipment costs, cost of interim space during construction, and moving costs are not included in cost estimates for replacement.

(6) Technical Handbook means the applicable portions of the latest version of the IHS Technical Handbook for Environmental Health and Engineering, including working drafts.

(7) Health Facilities Planning Manual (HFPM) means the applicable portions of the latest version of the IHS Health Facilities Planning Manual, including working drafts and computerized formats.

74-1.2 ADMINISTRATION

Applying Repair-by-Replacement is a two step process. The first step is to determine whether or not the existing building is eligible to be replaced rather than repaired, and the second step is to determine the maximum amount of M&I funds (or M&I and QR funds where applicable) that may be expended to procure the replacement building. These two steps are described in sections 74-1.2A. and 74-1.2B. below.

A. DETERMINING ELIGIBILITY - A non-quarters building may be replaced under Repair-by-Replacement if the cost of documented eligible repairs is 75% of the cost to replace that building with a new equivalent building. Justification to replace a quarters unit must meet the same criteria as non-quarters buildings while demonstrating that only government housing can meet the need. This justification must be documented in a Program Justification Document for Quarters (PJDQ). If Quarters Return funds are included in a quarters Repair-by-Replacement project, the Area office must have a plan, and include a specific statement in the PJDQ, that other critical quarters maintenance needs will not be compromised.

NOTE: Different replacement criteria may apply for a quarters unit under the Quarters Construction Priority System (new construction funding). However, the criteria above apply for Repair-by-Replacement, which does not require a Congressional line-item approval.

B. DETERMINING COST OF THE REPLACEMENT BUILDING - The M&I funds (and QR funds, where applicable) expended for the replacement building must not exceed the sum of the cost of eligible repairs plus the present value of Operation and Maintenance (O&M) savings. Present value O&M savings are calculated for 10 years using the standard formulas of engineering economics, or less than 10 years if the anticipated remaining time of need is less. These savings are determined by subtracting the estimated O&M costs of the existing building from the estimated O&M costs of the proposed building, including the reduced cost of materials, labor, and utilities. The standard economic present value function, built into most computer spreadsheets, may be used to determine what the future savings is worth now. The total 10 year savings multiplied by 0.8 is a good approximation of the present value of those savings at a 4.5% interest rate. See Appendix A for a summary example of determining the cost of the replacement building.

C. REQUIRED PRE-CONSTRUCTION DOCUMENTATION - Before construction on a replacement facility may begin, the following documentation must be approved per section 74-1.2D. below:

(1) A Comprehensive Engineering Economic Analysis demonstrating that Repair-by-Replacement is the most economical way to alleviate maintenance and repair deficiencies in an existing building. Sample engineering economics problems are found in most standard handbooks of engineering calculations.

(2) A Real Property Survey Report, (PHS 579).

(3) All applicable planning documents, (Project Summary Document (PSD, Program Justification Document (PJD), or Program Justification Document for Quarters (PJDQ)), for the specific proposed building, prepared in accordance with the Technical Handbook. A PJDQ is required for all Repair-by-Replacement projects involving quarters. If the replacement building will be on a different site than the existing building, a site selection report is required. Moving to a different location within the same site usually does not require a site selection report. In all cases, authority to occupy the site should be verified and documented.

(4) An Environmental Review, prepared in accordance with the IHS Environmental Review Manual. A positive response to any of the questions on the Environmental Review requires that an Environmental Assessment be prepared.

(5) An Environmental Evaluation and Remediation Plan for the site of the existing building and, if different, the site of the replacement building. Remediation of any environmental hazards must be completed before the new building is placed on any site. Environmental remediation funds managed by IHS Headquarters may be used, if available, to perform the necessary remediation activities at the existing site.

(6) A Disposal Plan for the existing building, prepared in accordance with the requirements and procedures in the IHS Technical Handbook.

D. APPROVAL AUTHORITIES - Approval of required documents as described in section 74-1.2C. are as follows:

(1) Comprehensive Engineering Economic Analysis: Approval by Associate Director, Office of Environmental Health and Engineering (OEHE), at the applicable IHS Area.

(2) Real Property Survey Report, (PHS 579): Approval by Director, Division of Facilities and Environmental Engineering (DFEE), Office of Public Health (OPH).

(3) Applicable Planning Documents:
a. PSD - Approval by Associate Director, OEHE at the applicable IHS Area;
b. PJD and PJDQ - Approval by Director, DFEE, OPH;
c. Site Selection Report - Approval by Associate Director, OEHE, at the applicable IHS Area.

(4) Environmental Review and Documentation: Approval by Area Environmental Coordinator.

(5) Environmental Evaluation and Remediation Plan: Approval by Associate Director, OEHE, at the applicable IHS Area.

(6) Disposal Plan for the Existing Building: Approval by Associate Director, OEHE, at the applicable IHS Area.

E. INTERIM ACTIVITIES - A preliminary analysis should be conducted when documented eligible repair costs exceed 50% of the replacement cost for an equivalent building.

The existing facility must be maintained in a safe and useful condition. However, if future Repair-by-Replacement is anticipated, only routine and preventive maintenance activities to ensure safety of employees and visitors, and to protect the building environment should be performed. Renovations and alterations to improve program functionality or to increase long-term reliability should not be made (or example, roof leaks must be fixed even if Repair-by-Replacement is anticipated; however, the entire roof should not be replaced unless there is no practical alternative).

Under no circumstances should major renovations be performed on a quarters trailer.

74-1.3 CONSTRUCTION PHASE

A. PROCEDURES - The Repair-by-Replacement construction shall comply with all applicable Technical Handbook criteria and procedures, and in particular shall be in accordance with relevant design criteria, codes, and standards.

74-1.4 RECORDS AND REPORTS

A. PROCEDURES - Repair-by-Replacement projects shall comply with the Technical Handbook criteria, procurement rules, and accounting procedures for new construction. The replaced building must be removed from the real property inventory and the new building entered into it, even though both buildings may be essentially identical. Removing a building from, and entering a building into, the inventory are both accomplished through use of form PHS-88 Real Property Voucher. Documentation supporting the submission of the PHS-88 vouchers typically include, but are not necessarily limited to:

(1) Real Property Survey Report, PHS-579

(2) Environmental Survey

(3) Complete contracting/procurement documents

(4) Payment Vouchers (signed)

(5) Real Property Report (prepared by Engineering Services and/or Area Facilities Manager)

(6) Contractor’s Release of Claims

(7) Final Payment Voucher

Appendix A - Example of Determining Cost of the Replacement Building

Cost to replace existing building with an equivalent building.	$60,000	An essentially identical structure.
Threshold to begin breakdown and routine maintenance only.	$30,000	Eligible repairs reach 50% of replacement cost for equivalent building.
Criteria to begin Repair-by-Replacement process.	$45,000	Eligible repairs reach 75% of replacement cost for equivalent building.
Current cost of repairs and improvements / alterations.	$57,000	Must be documented.
Subtract non-eligible repairs, improvements, and alterations.	- $10,000	
Eligible repairs.	$47,000	Meets R-by-R criteria. Itemize in the justification.
Monthly energy savings of replacement building.	$150	Compared with renovated existing building.
Monthly maintenance savings of replacement building.	$100	Compared with renovated existing building.
Total energy and maintenance savings over 10 years.	$30,000	(150 + 100) * 12 * 10
Present value of energy and maintenance savings over 10 years at 4.5% rate.	$24,000	Using present value formula (0.8 factor).
Maximum M&I allowed cost for replacement building	$71,000	$47,000 + $24,000

Appendix B - REAL PROPERTY SURVEY REPORT (HEW-579 (7/71)front)

HEW-579 (7/71)

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

REAL PROPERTY SURVEY REPORT

1. DATE OF REPORT	2. REPORT NO.	3. PAGE OF PAGES

4. ACCOUNTABLE AREA NUMBER

5. STATION

6. LOCATION

7. DESCRIPTION OF PROPERTY

a. USAGE CODE	b. CLASSIFICATION	c. ACQUISITION COST

d. OTHER IDENTIFYING AND DESCRIPTIVE DATA

8. REPORT AND RECOMMENDATION/S

a. Explanation of circumstances necessitating survey action: *(Include estimates as to the cost of repairs in cases involving damaged or deteriorated property; information concerning the screening of Government or non-Government activities in the area for transfer, sale or donation of the property; and, in the case of damage or destruction of property attach copy of memorandum report of person responsible for custody of the property.)*

b. Recommendations:

(Signature of Real Property Unit Manager) *(Date)*

Appendix B - REAL PROPERTY SURVEY REPORT (HEW-579 (7/71)back)

9. FINDINGS AND RECOMMENDATIONS OF BOARD OF SURVEY

All available evidence and testimony having been considered, the findings and recommendation of the Board of Survey are as follows:

a. Findings

b. Recommendation/s:

DATE

CHAIRMAN:	MEMBER:	MEMBER:
(Signature)	(Signature)	(Signature)
(Title)	(Title)	(Title)

10. DETERMINATION OF REVIEWING AUTHORITY

The recommendations of the Board of Survey are approved in detail, or as modified in the following respects:

(Signature and Title of Reviewing Authority) (Date)

11. CERTIFICAVION OF FINAL ACTION

I certify that the action/s recommended by the Board of Survey, as approved or certified by determination of the Reviewing Authority, has been accomplished, that any destruction ordered has been accomplished in the presence of at least one witness who is an officer or employee and whose signature appears below, and that the property accountability records have been properly adjusted if the nature of the action taken so warranted.

SIGNATURE OF REAL PROPERTY UNIT MANAGER	DATE
A. METHOD OF DISPOSAL (other than destruction)	DISPOSAL DOCUMENT NO.
NAME AND ADDRESS OF RECIPIENT	

B. Destruction was accomplished in my presence	SIGNATURE OF WITNESS	DATE
	TITLE	
	INDICATE NATURE AND EXTENT OF DESTRUCTION	